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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,572	03/26/2001	James M. Kennedy	56274.US	7767

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EXAMINER

KIM, AHSHIK

ART UNIT	PAPER NUMBER
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2876

DATE MAILED: 11/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/817,572

Applicant(s)

KENNEDY, JAMES M. 

Examiner

Ahshik Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

5 basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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1. Claims 1, 2, 4, 5, 13-17, and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Look (US 5,915,032).

Re claims 1, 15, and 20-22, Look teaches a remote code/indicia reading system 10, comprising a light source 30 for providing illumination, a reflective medium disposed on the target 12, which is remote from the light source, a detector 40, and an analyzer 45, and electronics 50 which processes the captured light/signal and extract the meaningful information (col. 1, lines 49+). Although Look is silent on the structural description of the system, as shown in the only figure, the component parts 20, 30, 40, 45 and 50 are constructed to protect sensitive optical/illuminating device.

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Re claims 2 and 5, the system is equipped with two infrared illumination sources 20 and 30. A filter can also be used with the light source such that the wavelength of the light is only in the range of 700-1100 nanometer (col. 2, lines 20-34).

Re claim 4, the shutter 32 is synchronized with the light source 30 (col. 1, lines 49+).

Re claims 13 and 17, the light sensing device further includes camera incorporating charge-coupled device (CCD), designed to detect infrared or the near range of beams (col. 2, lines 54+). Since the image is captured in the pixel array, and each pixel of CCD is assigned a scalar value, it can be considered that the image captured is processed by each bit map.

5 Re claims 14 and 16, although Look is silent about the dimension or configuration of the component parts, since larger field of view is preferred, the distance between the plate and the light beam should be as large as possible (col. 5, lines 28+). Also, the distance between the light sources 20, 30 and the detector 40 is not large as shown in the picture, and the angle created by the 40 and 20/30 via the license plate is also small.

10 Re claim 19, as further explained in the background and detailed description section (col. 1, lines 20+, lines 49+), the license plate is reftro-flective.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
15 obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole
20 would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25 2. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Look (US 5,915,032) in view of Long et al. (US 4,268,179). The teachings of Look have been discussed above.

Although Look's light source (infrared) possesses inherent characteristic of the light beam (i.e., wavelength, pulse width, frequency), Look fails to specifically teach or fairly suggest that the pulse width ranges from 0.1 to 1.5 milliseconds.

Long teaches a remote reading system 10 comprising infrared light source (col. 5, lines 14+). Long further teaches that the pulse width ranges from 1 to 10 milliseconds (col. 6, lines 4+), and the current amplitude can be of multiple of 150 milliamperes (col. 5, lines 58+).

In view of Long's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to adjust such parameters disclosed by Look in order to suit the particular design/application need of a user. For example, one scanning system can choose different spectrum of light source, and the resulting scanner may produce visible scanning beam. For some other application, the invisible scanning beam may suit them better (i.e., tamper-detecting, theft prevention, etc.). Accordingly, selecting such variable/adjustable parameters can be considered as a design variation consideration, failing to provide any unexpected results, and well within the ordinary skill in the art.

3. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Look (US 5,915,032) in view of Roxby et al. (US 5,585,616). The teachings of Look have been discussed above.

Look fails to specifically teach or fairly suggest that the light source is light emitting diodes (LED) generating laser infrared beam.

Roxby teaches a distant reading system as shown in figure 5 wherein the light source further comprising a LED generating a laser infrared beam (see abstract; col. 3, lines 14+).

In view of Roxby's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to employ a notoriously old and well-known LED to the teachings of Look in order to provide better focused light source for the tags to be read. Laser beam, compared to other light source, provides intense monochromatic beam and, thus provide improved illumination. Accordingly, by utilizing laser LED, illumination on the target can be enhanced, and the clear image can be captured onto CCD, and thus an obvious expedient. Moreover, although not disclosed in the reference to Roxby, the circuitry/logic which can control individual or group of LEDs can be incorporated, which in turn, further improves lighting effects.

4. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Look (US 5,915,032) in view of Ruell (US 4,368,979). The teachings of Look have been discussed above.

Look fails to specifically teach or fairly suggest that the reflective medium is layered, and the barcode beneath the cover is undetectable to human eyes.

Ruell teaches a remote indicia reading system wherein the hologram is displayed on a license plate (see Abstract; col. 1, lines 62+). The plate, as shown in figure 1, contains alphanumeric characters. The hologram may take the form of one dimensional line code – barcode. Since the code is invisible in human eye, and only visible when applied with infrared beam, the whole code can be considered a decoy barcode. is displayed on the license plate of a vehicle (col. 4, lines 32), whose barcode faces rearward to be read.

In view of Ruell's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to further incorporate old and well-known hologram-effect to

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the teachings of Look in order to discourage tampering or unauthorized duplication. Tamper-proof utilizing hologram or decoy barcode is well known in the art. Adding such effects to the plates, the plates are recognized as genuine. Moreover, tampered/forged plates can be easily recognized, and thus the vehicle or the owners can be better protected, and thus an obvious expedient.

5 Claim 18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Look (US 5,915,032) in view of Hudson (US 6,448,889). The teachings of Look have been discussed above.

10 Look fails to specifically teach or fairly suggest that the indicia further comprise a barcode.

Hudson teaches a remote barcode reading system wherein the barcode is displayed on the license plate of a vehicle (col. 4, lines 32), whose barcode faces rearward to be read. In view of Hudson's teaching, it would have been obvious to an ordinary skill in the art at the time the invention was made to further incorporate old and well-known barcode to the teachings of Look in order to efficiently store and manage information relevant to the carrier (i.e., vehicle, container, etc.). Utilizing barcode, information to be stored is significantly increased. Moreover, since barcode is an encoded form of data, while sensitive information can be still carried on the carrier, they are not exposed to others, and thus an obvious expedient.

Conclusion

20 I. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kubon (US 5682030); Urbish et al. (US 5734343); Wright (US 6142372); Ho (US

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5436437); Rose (US 5521815) Streicher et al. (US 6213393) disclose various remote reading systems and related methods.


II. Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Ahshik Kim* whose telephone number is (703)305-5203. The examiner can normally be reached between the hours of 6:00AM to 3:00PM Monday thru Friday.

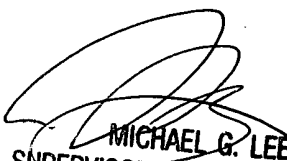
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee, can be reached on (703) 305-3503. The fax number directly to the Examiner is (703) 746-4782. The fax phone number for this Group is (703)308-7722, (703)308-7724, or (703)308-7382.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [ahshik.kim@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.


Ahshik Kim
Patent Examiner
Art Unit 2876
October 29, 2002


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